

Date: Wednesday, 28/01/2009 4:59:56 PM
 User: Julie Dawson

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	FWD LITTER TIE DOWN BRACKET
Job Number :	45324		
Estimate Number :	11495		
P.O. Number :		Part Number :	D3179041
This Issue :	28/01/2009	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D3179 REV C
First Issue :	/ /	Project Number :	N/A
Previous Run :	43973	Drawing Revision :	C
	Type :	Material :	
	MACHINED PARTS	Due Date :	10/02/2009
Written By :		Qty:	8 Um: Each
Checked & Approved By :	<u>JULIE DAWSON 09.01.29</u>		
Comment :	Est. A1 03.01.09 Added Acid etch end alodine RF Est Rev:B Added Powder Coat 07-07-04 JLM Est Rev:C 08-12-10 add part list DD verified by:JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6201	"T" Extrusion
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8.504K

(10.5" scrap)
88 09/02/04 9'

Comment: Qty.: 1.0631 f(s)/Unit Total : 6.3788 f(s)
 Material: D6201 (6061-T6 (QQ-A-200/8) 4" x 4" x 3/8" Thick 'T' extrusion

B43959

Batch: 43959

H.A 09/02/01

2.0	BAND SAW	BAND SAW
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85 09/02/04 (8)

Comment: BAND SAW
 Cut blanks: 12.150" long

H.A

09/02/01

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1

(8)

1- Mill as per Folio FA297 Rev: C & Dwg D3179-1 Rev: C

2-Deburr per dwg D3179-1

H.A 09/02/05

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



(8)

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

H.A

09/02/05

5.0	QC8	SECOND CHECK
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**Comment:** SECOND CHECK

H.A 09/02/08

(8)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 28/01/2009 4:59:57 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD LITTER TIE DOWN BRACKET

Job Number: 45324

Part Number: D3179041

Job Number:



Seq. #: Machine Or Operation: Description :

6.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



⑧

Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

FL 09/02/09

7.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



⑧

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BK 09-02-09

8.0 POWDER COATING POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M 102996

⑧

START TIME:

9:00

OVEN TEMPERATURE:

320°

FINISH TIME:

9:30

FL 09-02-10

9.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09-02-10

⑧

10.0 D2372 Quick Release



Comment: Qty.: 2.0000 Each(s)/Unit Total: 12.0000 Each(s)

Quick Release

batch: 041426

EP 09/02/12

11.0 D2444 Pip Pin Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Pip Pin Assembly

batch: B45387

EP 09/02/12

12.0 MS21042L3 Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Nut

batch: M109798

EP 09/02/12

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 28/01/2009 4:59:57 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD LITTER TIE DOWN BRACKET

Job Number: 45324

Part Number: D3179041

Job Number:



Seq. #:	Machine Or Operation:	Description :
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13.0	MS27039113	Screw
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Screw

batch: M105211

09/02/12

14.0	NAS1149D0332J	Washer
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Comment: Qty.: 3.0000 Each(s)/Unit Total: 18.0000 Each(s)

Washer

batch: M110625

09/02/12

15.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble as per Dwg D3179

09/02/12 (8)

16.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

09/02/12 (8)

17.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N using a permanent fine point marker on bottom face as per dwg, then Stock

Location: _____

09/02/12 (8)

18.0	QC21	FINAL INSPECTION/W/O RELEASE
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Comment: FINAL INSPECTION/W/O RELEASE

09/02/12
MF
09-02-12

Job Completion



Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ART AEROSPACE LTD		Work Order: 45324
Description: Fwd Litter Tie down Bracket		Part Number: D317901
Inspection Dwg:	Rev: C	Page 1 of 1

D3179 Rev C

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.00	+ .030	12.002	✓			
10.500	+ .010	10.002	✓			
8.00	+ .030	8.005	✓			
4.250	+ .010	4.246	✓			
2.875	+ .010	2.872	✓			
1.00	+ .030	1.005	✓			
.500	+ .010	.500	✓			
.750	+ .010	.751	✓			
1.50	+ .030	1.500	✓			
1.70	+ .030	1.695	✓			
0.750	+ .010	.755	✓			
0.97	+ .030	.968	✓			
1.625	+ .010	1.608	✗	✗		Acceptable
1.250	+ .010	1.226	✗	✗		Acceptable
0.375	Ref	.372	✓			
1.86	+ .030	1.840	✗	✗		Acceptable
3.31	+ .030	3.295	✗	✗		Acceptable
4.00	Ref	3.987	✓			
R.400	+ .030	.400	✓			
R.37	+ .030	.375	✓			
Ø.191	+ .005 - .001	.193	✓			
Ø.242	+ .006 - .001	.243	✓			

Measured by: SS/NA	Audited by: Jmk	Prototype Approval:	N/A
Date: 09/02/04 09/02/05	Date: 09/02/08	Date:	N/A

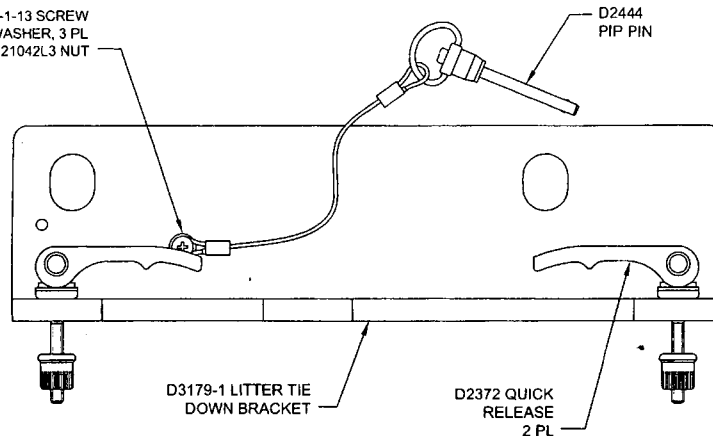
Rev	Date	Change	Revised by	Approved
		New Issue	KJ/JLM	

P10 D3179-041

Item	Qty	Part Number	Description
1	X	D3179-041	FWD LITTER TIE DOWN
2	2	D2372	QUICK RELEASE
3	1	D2444	PIP PIN
4	1	D3179-1	LITTER TIE DOWN BRACKET
5	1	MS21042L3	NUT
6	1	MS27039-1-13	SCREW
7	3	NAS1149D0332J	WASHER (OR AN960JD10L)

MS27039-1-13 SCREW
NAS1149D0332J WASHER, 3 PL
MS21042L3 NUT

D2444
PIP PIN



D3179-041 FWD LITTER TIE DOWN BRACKET

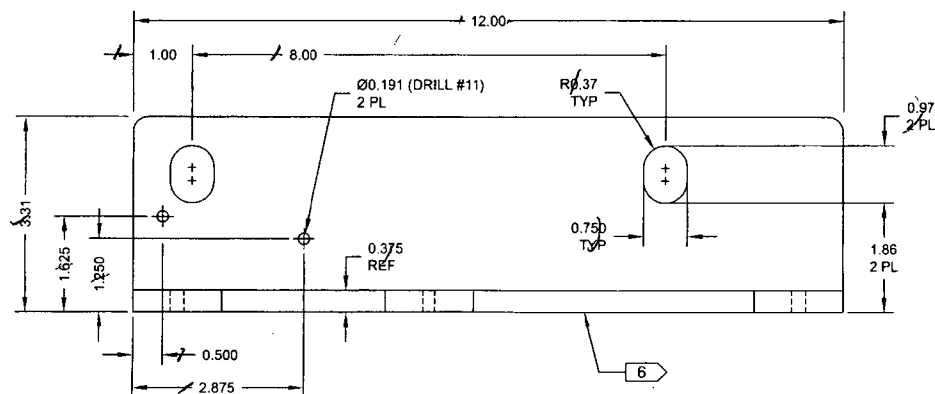
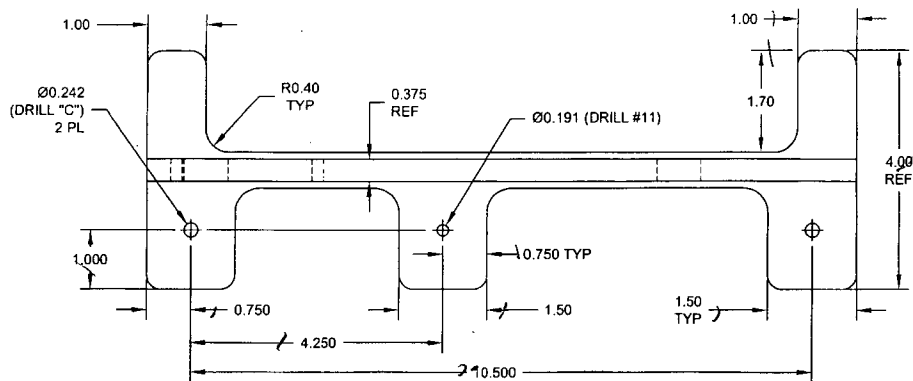
RELEASED
08/11/07

NOTES:

1) D3179-041 WEIGHT: 2.79 lbs

C	ADD D3179-041 & PART LIST (ZN B6-1, D2-1); D3179-1 WAS D3179 (ZN A5-2); REMOVE ENGRAVE P/N	RF	08.11.07
B	REFORMAT DRAWING; FINISH WAS ANODIZE	DC	07.06.06
A	NEW ISSUE	RF	02.12.09
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3179	SHEET 1 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	LITTER TIE DOWN BRACKET	NTS
DATE	08.11.07	COPYRIGHT © 1995 BY DART AEROSPACE LTD "THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMBINATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD."	

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WITHOUT NOTICE
NO. 15324



D3179-1 LITTER TIE DOWN BRACKET

NOTES:

- 1) MATERIAL: MAKE FROM D6201-012 EXTRUSION (6061-T6/T6511 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3179-1 USING FINE POINT PERMANENT INK MARKER ON THE BOTTOM FACE
- 7) WEIGHT: 2.3 lbs

DESIGN	BW	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PL	DRAWING NO.	REV. C
MFG. APPR.		D3179	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		LITTER TIE DOWN BRACKET	NTS
DATE	08.11.07	COPYRIGHT © 1995 BY DART AEROSPACE LTD	

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